Amendments to the Claims

- 1-16. (Cancelled)
- 17. (New) Apparatus for analysing a polynucleotide, the apparatus comprising: a support having an impermeable surface; porous material attached to the impermeable surface; and an array of oligonucleotides attached to the porous material, wherein the array comprises at least two defined cells, the sequence of the oligonucleotides of a first cell is different from the sequence of the oligonucleotides of a second cell, and the oligonucleotides are shorter than the polynucleotide.
- 18. (New) Apparatus of claim 17, wherein the porous material is a microporous material.
- 19. (New) Apparatus of claim 17, wherein the support is made of a silicon oxide.
- 20. (New) Apparatus of claim 19, wherein the support is made of glass.
- 21. (New) Apparatus of claim 17, comprising between 72 and 1.1×10^{12} cells.
- 22. (New) Apparatus of claim 17, wherein each cell holds at least $3x10^{-12}$ mmol of oligonucleotide.
- 23. (New) Apparatus of claim 17, wherein the oligonucleotides are covalently attached to the porous material.
- 24. (New) Apparatus of claim 23, wherein the oligonucleotides are covalently attached by a terminal nucleotide.
- 25. (New) Apparatus of claim 17, wherein the oligonucleotides are synthesized *in situ*.

- 26. (New) Apparatus of claim 17, wherein the apparatus is manufactured using a computer-controlled device.
- 27. (New) Apparatus of claim 26, wherein the computer-controlled device is a printing device.
- 28. (New) A method of making an array of oligonucleotides, which method comprises: attaching a plurality of oligonucleotides to a porous material that is attached to an impermeable surface of a support, the oligonucleotides having different predetermined sequences and being attached to the porous material at different known locations on the surface of the support through a computer-controlled printing device.
- 29. (New) Method of claim 28, wherein the porous material is a microporous material.
- 30. (New) Method of claim 28, wherein the support is made of a silicon oxide.
- 31. (New) Method of claim 30, wherein the support is made of glass.
- 32. (New) Method of claim 28, comprising between 72 and 1.1 x 10¹² known locations.
- 33. (New) Method of claim 28, wherein the computer-controlled printing device delivers at least $3x10^{-12}$ mmol of oligonucleotide to the known locations.
- 34. (New) Method of claim 28, wherein the computer-controlled printing device is a plotter or an ink-jet printer.
- 35. (New) Method of claim 28, wherein the oligonucleotides are covalently attached to the porous material.

36. (New) Method of claim 35, wherein the oligonucleotides are covalently attached by a terminal nucleotide.